

Serial Number: 10/815,464

Filing Date: March 31, 2004

Title: METHOD OF EMBEDDING PASSIVE COMPONENT WITHIN VIA (as amended)

Assignee: Intel Corporation

IN THE DRAWINGS

Corrected drawings are supplied herewith, each labeled as "REPLACEMENT SHEET". The drawings submitted are more formalized versions of the drawings than those submitted with the originally filed application.

REMARKS

This responds to the Office Action mailed on February 28, 2006. In this response, claims 32, 39, and 42-45 were amended, claims 27-31, 38 and 46-68 were canceled, and claims 69-71 were added. As a result, claims 32 -37, 39-45 and 69-71 are now pending in this application. In addition, the title of the invention was changed and a summary was added, per the Examiner's request. Applicant requests reconsideration of this application in view of the above amendments and the remarks that follow.

Affirmation of Election

By this office action, Applicant has cancelled claims 27-31 and 46-68 as required by the Examiner. Applicant retains the right to reintroduce the claims at a later time in this or another application related to this application.

Arrangement of Specification

On page 3 of the of the Office Action dated February 28, 2006, the Examiner set forth 37 CFR 1.77(b) regarding the arrangement of the specification of a utility application. The Examiner then indicated that the Summary section of the application is missing and stated that appropriate correction is required. It should be noted that 37 CFR 1.77(b) does not require each section. By this amendment, Applicant has added a Summary per the Examiner's comments.

§112 Rejection of the Claims

Rejection: Claim 39 was rejected under 35 USC § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Response: Applicant suggests that the Examiner apply the plain normal meaning of the term. According to the Microsoft Computer Dictionary, Fifth Edition, memory is defined as "A

device where information can be stored and retrieved.” Applicant feels that the meaning of the term is inherent. However, Applicant also includes herewith a copy of the definition from the Microsoft Computer Dictionary, Fifth Edition.

§102 Rejection of the Claims

Rejection: Claims 32-45 were rejected under 35 USC § 102(b) as being anticipated by Crockett et al. (U.S. 2002/0100612).

Response: : Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration. *In re Dillon* 919 F.2d 688, 16 USPQ 2d 1897, 1908 (Fed. Cir. 1990) (en banc), cert. denied, 500 U.S. 904 (1991). It is not enough, however, that the prior art reference discloses all the claimed elements in isolation. Rather, “[a]nticipation requires the presence in a single prior reference disclosure of each and every element of the claimed invention, *arranged as in the claim.*” *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)) (emphasis added).

Applicant respectfully submits that the Examiner has failed to make out a proper *prima facie* case of anticipation with respect to claim 32, since the Crockett et al. reference does not disclose each element of the claim under consideration. Claim 32, as now amended, recites “...forming an electrical component in the via in the substrate, wherein the electrical component includes at least a portion of memory.” Simply put, the Crockett et al. reference fails to teach forming an electrical component which includes at least a portion of memory. As a result, claim 32 now overcomes the Examiner’s rejection under 35 USC § 102(b) as being anticipated by Crockett et al. (U.S. 2002/0100612).

Claims 33- 44 depend from claim 32 and include the limitation of claim 32 by their dependency. Therefore, claims 33- 44 also overcome the Examiner’s rejection under 35 USC § 102(b) as being anticipated by Crockett et al. (U.S. 2002/0100612).

§103 Rejection of the Claims

Rejection: Claims 42-44 were rejected under 35 USC § 103(a) as being unpatentable over Crockett et al. in view of Figueroa et al. (U.S. 6,446,317) or vice versa.

Response: : In order for the Examiner to establish a prima facie case of obviousness, three base criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference or references must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. M.P.E.P. § 2142 (citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed.Cir. 1991)).

Claims 42- 44 depend from claim 32 and include the limitations of claim 32 by their dependency. As mentioned above, claim 32 recites "...forming an electrical component in the via in the substrate, wherein the electrical component includes at least a portion of memory." The Crockett et al. reference fails to teach or suggest forming an electrical component which includes at least a portion of memory. In addition, the Figueroa et al. reference also fails to teach or suggest forming an electrical component which includes at least a portion of memory. Simply put, the combination of the prior art references fails to teach or suggest all the claim limitations. As a result, claims 42-44 now overcome the Examiner's rejection under 35 USC § 103(a) as being unpatentable over Crockett et al. (U.S. 2002/0100612) in view of Figueroa et al. (U.S. 6,446,317) or vice versa.

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Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney ((612) 373-6977) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 30th day of May, 2006.

Name

Amy Moriarty

Signature

